

A Family Alone – Chapter 36 – Planning Ahead

“I’m generally opposed to using landmines, Lincoln,” Tom explained. “I found the CD with the topo maps and I can’t see that we have much other choice.”

“Normal procedure would be to intersperse the APMs and the ATMs. The use of anti-personnel landmines (APL) can be traced to World War II when they were developed for use in antitank (AT) minefields to discourage foot soldiers from disabling AT mines. Unfortunately, even when used according to the generally accepted doctrine of marking and recording, these non-self-destructing APMs continued to pose hazards long after the end of the conflict. Although we have since adopted self-destructing and self-deactivating landmines, the increased cost has limited their use to only NATO allies and a few other countries. Because the bulk of the mines still in use around the world are neither self-deactivating nor self-destructing, the humanitarian consequence of deploying these mines has led to an effort to achieve a global ban on APM.

“In response to this effort, Presidential Decision Directive (PDD) 48 announced a new APM policy. The Directive allowed the US to keep its mixed antitank (AT), self-destructing mine systems and directed the Department of Defense to develop and field alternatives to pure APM systems throughout the armed forces. The APM Alternatives program began as a two-track approach. A second directive, PDD 64, provided additional direction for mixed systems and added a third track to the program.”

“Because all you have are the older, non-self-destructing mines, I’m going to propose a different approach. We can put in the ATMs first and add the APMs in a second minefield. If the military does happen to come back with armor, the first field will stop it cold and they’d have to be fools to continue. On the other hand, if you get some amateurs, they’ll probably continue and walk right into the APMs.”

“How long to get it all in place, Linc?”

“Depends on how many we deploy, maybe a couple of weeks, possibly longer.”

“Dean, are you comfortable with this?”

“Suits me.”

“Jim?”

“It’s a go as far as I’m concerned.”

“What about the Claymores you brought?”

“Manny told me that he dug a fighting trench around the original 40-acres. We can deploy the Claymores there.”

“Let’s do it. Dean are you ready to complete our ride?”

“Sure.”

“I wonder how Linc is going to put in the mines in asphalt?”

“Good question, maybe he won’t.”

“Oh?”

“He might remove the asphalt and leave us with a gravel road. That would be one solution. In fact, that would be the only solution that I can see. Meanwhile where are we going to put the new road that we’ve talked about?”

“This ridgeline on the south of the acreage extends all of the way back to the road. We could remove some trees and probably get trucks through there.”

“You realize that that will mean clearing about 15-20 acres of ground, don’t you?”

“That will give us a more firewood, maybe as much as 300 cords.”

“I didn’t think about that. But, if Linc clears off the asphalt, we’re going to have 2 crews working fulltime for several months.”

“I can’t see any problem with that Dean. With the number of people we have now, there isn’t enough work to keep everyone busy. With that extra septic system we added, our limit is now about 24 families. In order to add more families, we’ll need to clear more pasture, too. I noticed that one of our tankers is empty, do you have any idea where we can get a refill or a replacement?”

“Not a clue, Tom. There weren’t any more on I-5. The two propane delivery trucks are empty too. When we go to Tracy to refill them, why don’t we find out if they know where we can get a load of diesel?”

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“We are getting 100% biodiesel from Monterey, Tom. It comes from an outfit named Pacific Biofuel.”

“Do you think we could get a full load, 16,000-gallons?”

“I can’t tell you that, but you could try. What are you people doing with your used cooking oil?”

“We’ve saved it. We have it in 55-gallon drums because we don’t know how to produce biodiesel.”

“That’s the thing, they do. Most of their product used to be from recycled vegetable oils. They have two operations now, recycling and biodiesel produced from soybean oil. In the past, we have been able to trade them our used vegetable oils for biodiesel and a little to cover their processing costs. It isn’t a straight trade because one gallon of used oil doesn’t produce one gallon of biodiesel. Their soybean-based biodiesel is running about \$5 a gallon these days. You can blend it with diesel, you know. In the manufacturing process, 100 pounds of oils or fats are reacted with 10 pounds of a short chain alcohol (usually methanol) in the presence of a catalyst (usually sodium or potassium hydroxide) to form 100 pounds of biodiesel and 10 pounds of glycerin. How many drums of used cooking oil do you have now?”

“Counting the used lard? A lot. We’ll have to count them. We’re getting about 75 pounds of lard from every hog and we keep running out of barrels.”

“They take any kind of animal or vegetable fats.”

“How steep is their processing fee?”

“A buck and a half a gallon, based on a 95% yield.”

“Thanks.”

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“Hell, we might just as well Dean. Even if they’re only giving 95-gallons back for every 100-gallons we provide them, we’ll be ahead. There must be a hundred barrels of used fats.”

They had 150 55-gallon drums of used cooking oil. They got back 7,838 gallons of B100 diesel for \$11,757. They emptied the barrels and took them home to refill. It might take a while, but they had solved their energy crunch for only \$1.50 per gallon. Theoretically 100 gallons of oil would produce 100 gallons of biodiesel. There was probably some water condensate in the oil that the processing plant allowed for. Regardless, the used oil wasn’t doing them any good and now they had fuel.

Tom and Dean discussed the possibility of adding more families and agreed that they would make one more addition to the septic system and go to more families.

“We were alone for so long on the acreage, we were a family alone. I sometimes think of everyone as our extended family and I conclude that even though we’ll end up with nearly 100 people, we will remain in many respects just one big family.”

“I understand, Tom. When our kids got married, it was natural for us to move here being related by marriage and all. How many times now have I heard you say that just a few more and we’ll stop?”

“Damned if I know, I wasn’t counting. It also occurs to me that with us taking over the property all the way to the road that it wouldn’t really be wrong to call our growing community Hildreth because Hildreth is on all of the maps.”

“I know we can squeeze in 3 more trailers, Tom. Should we find some and get them setup? It would allow us to recruit people.”

“Not 3 surely. We’d want to leave a spot open in case someone brought his or her own mobile home. But we could get 3 and install 2 of them. We could park the extra trailer by the central stores trailers. Just one thing, Dean, make sure we only get new. I can’t see us spending a lot of time rehabilitating trailers.”

“Fine with me. I guess we have our work cut out for us with the security system, the road, expanding the septic system, locating and installing mobile homes.”

“There is one other thing, Dean. We just have the two generators. We should do something about that. If we add more trailers, we’ll be pushing the envelope on our solar panels. On days when the sun doesn’t shine we could exhaust the batteries and there is no way we could continue to supply the power.”

“What’s the answer, more batteries?”

“I thought about that, but we couldn’t charge more batteries, assuming we could find them. Panels and thin film will be difficult to find. I also thought about a bigger generator, but we don’t have unlimited fuel. The nearest geothermal is 50 miles away, if we wanted to try and tap Long Valley. The only thing left is a wind turbine. They put a big one in Palmdale nearly 20 years ago for their Water District. It seems like it had a capacity of nearly 1Mw. It would be too big to dismantle and move, but I think wind is our only solution.”

“I saw that turbine in Palmdale. You can see the tower from a long ways off and I agree we couldn’t dismantle it. What we need to do is find a project under construction. This is the state to do that, Tom. Someone is always expanding their wind generation capacity.”

“We should probably talk to Gunny about this Dean; he’s our electrical/mechanical specialist.”

“...so that was our thinking, Gunny. Any ideas?”

“It won’t be easy erecting a tower, but if you can get a crane we could do it. These days most of the commercial systems run anywhere from 600kw to 1.5Mw. A person wants to put in 3 times as much capacity as their power needs because you have to allow for when the wind isn’t blowing hard enough. We get a steady updraft here so wind would work. You could try and get a standby generator for when the wind isn’t blowing at all.”

“Dean and I discussed that, Gunny. Our fuel supply is limited.”

“You wouldn’t need it very often, Tom. Rather than try and synchronize several small generators, one large generator would be better.”

“Ok, let’s do it.”

Gunny smiled and rubbed his hands together. “Leave it to me fellas, I’ll figure it out and get something put in. I’d rather do that than play with landmines anyway.”

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It seemed like they always had a project going, whether it was upgrading their security, improving their power capacity, clearing more land or just trying to produce enough food for the folks on the acreage. Gunny found a diesel generator rated at 400kw and a wind turbine rated at 750kw. After they had the tower installed, they kept the crane. Jim expressed concern that the tower could be seen and might attract trouble. Three more mobile homes were brought in and 2 set up. The third was stored in the central stores area across the road.

“If we could just erect a fence around this property, we’d be as snug as a bug in a rug, April.”

“20’ high and 20’ thick Tom? That’s not the answer; I’d feel like a prisoner. People quit building castles a long time ago.”

“I was just thinking of our grandchildren, honey. Jim’s assessment of our ability to repel an attack has raised a new issue. We can only field about 60 people to repel the hoard.”

“It used to be so simple. All we had to worry about was winter snowstorms and waiting for the County to grade the road. There were only the 4 of us and you could protect us. I miss the good old days.”

“Twenty years ago? They were good times, weren’t they? You were selling Watkins products and I was packing and delivering them to UPS. Before was always better, but we were younger then too. Samantha and Rob are the age we were back then. Unfortunately, time doesn’t stand still.”

“So, what are you going to do?”

A Family Alone – Chapter 37 – Castles

“I’m not sure. Maybe build a monument to man’s stupidity.”

“What’s that mean?”

“George S. Patton, the WW II General, always said that fixed fortifications were monuments to man’s stupidity. Build a castle, I guess.”

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“Circular? Are you out of your mind?”

“I did the math and if we erected a circular wall with a radius of 1,053’ we could enclose 80 acres.”

“Do this math, Tom, it would have an inner circumference of $2 * 1,053 * 3.14$ or 6,613 feet. If you built 2 3’ thick walls with say 14’ earth in between, we’re talking about 6,613’ + 6,738’ or 13,351’ of wall. If they were 20’ high and 3’ thick, the outer wall would require 404,280 ft³ of rock and the inner wall would require 396,780 ft³ of rock. 801,060 ft³ of rock is 29,669 yds³. The earth inside of the walls would be several times that amount probably 2 million ft³ or over 75 thousand yds³.”

“I guess that I’d better get started, it sounds like it might take a while. We’ll call the place Patton’s Castle.”

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“Dean, you need to have a talk with Tom, he’s gone off the deep end. He’s talking about erecting a circular castle containing 80 acres of land. It would take years.”

“Jim, Tom and I talked it over and he has several ideas that would make it possible to erect the castle in a short time. He is going to use slip form construction and build the inner and out walls simultaneously. He’ll haul in rock from several of the mines in Madera County. The earth he needs to fill the space will come from an excavation just outside of the outer wall. He told me that it would have the effect of nearly doubling the height of the outer wall. Let him do it, it will keep him out of everyone’s hair. I’m going to start up a biodiesel fuel project to stay out of everyone’s hair. I’ve come up with enough lye and after I build a still, I’ll have the alcohol. I figure that I can process our waste fats about as fast as we produce them.”

“I need a drink, you’re both crazy.”

“It will be a while before I have shine, Jim.”

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Both Tom's and Dean's choices were logical, if not scatterbrained. Slip form construction had been used for years and was a common technique. With the proper accelerants in the concrete used to hold the rock together, he could work continuously. The first thing Tom did was lay out the circle, centered on the dome, and decide where he wanted the entrance to his castle.

An acre is 43,560 ft² therefore 80 acres are 3,484,800 ft². The area of a circle is pi (3.14) times the radius squared and the radius can be calculated as 1,053 feet by dividing the area by 3.14 and computing the square root of the result. The most common form of continuous pour, slip form construction is a concrete highway and the second most common form is probably the concrete grain elevator. This wasn't rocket science, but to avoid problems with the pour, it would have to be a 24/7 operation. If Tom slipped the form at a rate of 1' per hour, it would take over 280 days to erect the walls. That wasn't fast enough; he wanted the walls done in less than 100 days and the earth fill installed within a month later assuming he allowed a cure time of 30 days for the walls.

This would determine the length of Tom's forms. With a slip rate of 3' per hour and an initial cure time of 6 hours, he would need forms about 18'-21' long. The earth was to be compacted as it was added permitting them to pour a concrete slab on the top of the fill dirt. Tom spent a month getting his ducks in a row because once he started; he was going to be working 12 hours a day for over 3 months. He persuaded Rob to take the other shift. The first step was to bring a concrete bulk plant and a large volumes of sand, cement, aggregate, reinforcing fiberglass fibers plus sodium nitrate, an accelerator. That was completed during the month Tom was lining up the ducks, in a row.

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"Are we ready, Rob? It will take us about 145 days start to finish. I'd rather wait to start this if we're not going to be able to complete it."

"They didn't teach building construction in Paramedic class."

"We have Harry Olsen to advise us, he has some experience with concrete construction. He says this is doable provided we don't experience any breakdowns with the equipment."

"Who is our main equipment operator, some guy named Murphy?"

"I planned for that, we have one spare everything. Garry rounded up spare parts of the things he thought were most likely to break. We have 5 ready mix trucks and only require 4."

"Shelly thinks you're crazy."

"What do you think?"

“I think that Dean makes very good moonshine. Have you tried it?”

“I’m waiting for him to age the excess in that oak barrel he charred.”

“I hope we get the wall finished before Dean has a keg of bourbon.”

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It took 6 months, not less than 5 to complete the wall. Murphy was operating a lot of the equipment and Tom was able to compensate by adjusting the accelerant and the pull rate on the slip form. The pour was continuous, but challenging.”

Three months into the project, Jim came up to Tom and announced, “I’m impressed.”

“Jim, this isn’t going the way I planned at all. The equipment was old and poorly maintained. If it weren’t for Garry and Gunny making repairs, I’d be in deep doo-doo. We’re way behind schedule. I had planned on having it finished in about 145 days.”

“How deep is the ditch you’re digging to get the fill dirt?”

“It is 14’ wide and 13’ deep. That way we know when we have the soil compacted enough to pour the concrete on top. We’re topping the 13’ of earth with about a foot of gravel and a 6’ slab. I thought about the various ways to finish off the top of the wall, but I couldn’t think of anything easy. So, I thought maybe we could try and use sandbags. They’ll have to wait until we get the wall completed, we don’t have time to find any or to fill them.”

“Want me to see what I can do to help?”

“Did you lose some of you skepticism?”

“I just want to protect whoever is standing on the wall protecting your castle. Why did you decide that you wanted to call it Patton’s Castle?”

“George S. Patton.”

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“We’re going to need sandbags and a lot of them. Anyone have any suggestions?”

“I can come up with the bags, but are you going to haul in more sand? If you do that, you’re going to need to find another dump truck.”

“How about we fill them at the reclamation site? That way we could load them on any standard truck and bring them back.”

“Good idea, we’d only need to handle the sand once.”

“What about a drawbridge to go over the moat that Tom is creating?” Manny asked. “Do you want me to build another one out of wood?”

“Manny,” Jim replied, “I would prefer steel because wood burns. Could we scavenge some of those plates they used to cover highway construction projects and fabricate something out of them?”

“We could use I beams with a plate on the bottom and the top,” Gunny suggested. “Maybe one layer of plate on the top and two layers of plate on the bottom. Has Tom said how wide he intended the gate to be?”

“Not that I’m aware of. Gunny a bridge like that would be very heavy. I’m not sure we could totally counterbalance it.”

“We wouldn’t need to. There are those Warn winches on the pickups. If we put one on each side, we could lift over 20,000 pounds without difficulty. We would only need to counterbalance the difference. The old drawbridge was built with a 1:1 mechanical advantage. If we made the counterbalance arms shorter and doubled the weight, we wouldn’t lose any mechanical advantage and the only limit would be the strength of the counter arms. I have some engineering tables I can consult, but I think we’d want to use 12” I beams. On the exterior rails, I’d prefer to use 12” heavy steel pipe. It would be stronger than a comparable I beam and have the advantage of being able to be filled with concrete in the counterbalance side.”

“I’ll talk to Tom and get the dimensions of the drawbridge he wants,” Jim offered.

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“I hadn’t given it much thought, Jim. It wouldn’t need to be too wide, all we’d have to do is to be able to get a semi-trailer across it.”

“Maybe 8’ wide?”

“You’d better make it 10’. How are you going to build it?”

“We’ll build it out of steel. Gunny had some good ideas and all he needed to know was the dimensions.”

“I suppose 10’ wide and 15’ long should do it. It will be the weak spot in the castle.”

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Perspective:

The King Dome in Seattle, WA was built in 1976 and razed in 2000. The facility was 660' in diameter and therefore covered 341,946 ft² or 7.85 acres. By increasing the diameter of the inner wall to 2,106' they enclosed 3,481,660 ft² or 79.92 acres. One obvious difference was in the walls. At the apex of its dome, the King Dome was 250' high. The walls were probably half that height or maybe 125'. The walls of Patton's Castle were only 20' high on the inside and 33' high from the bottom of the dry moat to the top of the outer wall. 2,106' is 3.2 times the diameter of the King dome, however, the area inside the circle was 10.18 times larger. You can check it by multiplying 3.2 times 3.14 and roughly verify the difference, but allow for rounding.

You might also ask yourself how much space did that dome take inside the castle walls. It was 120' diameter x 60' high. The main level had ~ 11,304 square feet. The castle had 3,481,660 ft² inside of its walls and the dome only used 0.33% of the space, 1/3 of 1%.

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"You've advanced several yards since I was here looking it over. This is really beginning to take shape."

"It should stand for a few generations. Who knows, several hundred years from now, some archeologist might examine the structure and wonder why someone would build a castle during the 21st century."

"I had my doubts, but not any longer. We're working on the sandbag problem and will have the drawbridge installed by the time you complete the circle."

"It might just be foolishness, you know. In all of the time we've been here, we've only had that one little band of thugs and the Army twice."

"Possibly, but that dome sure came in handy when Long Valley erupted."

"Martians will probably attack the planet and vaporize the walls with their ray guns."

"That old house of yours sure takes up a lot of space, in relative terms. So does Dean's. Everyone is living in mobile homes these days, why don't Dean and you move into mobile homes? We could place them against the wall and could greatly increase our home capacity."

"I don't believe that the septic system could handle that many homes, Jim."

"You don't want your drain field inside of the castle anyway Tom. I'm going to see about building an entirely new septic system outside of the walls. We can start out with bigger septic tanks and put in a system large enough to accommodate 50 homes plus the dome."

A Family Alone – Chapter 38 – Complete Independence

“That would be enough housing for what, 200 people? That’s 50 times the number April and I started with way back when. Can we grow enough food on the remaining ground to feed that many people?”

“There is actually room for more trailers, but we need to leave room for the semi-trailers that make up central stores.”

“Build the septic system to accommodate the maximum number of homes. My best guess is that it would be closer to 75, so make it for 100. That way, when you’re done, we won’t have to expand it later. You didn’t answer my question about growing food.”

“In a word, yes. But even if we couldn’t, we could have fields outside of the castle.”

“Patton’s Castle.”

“I’ll have someone paint a sign.”

While Tom and Rob completed the walls, Gunny fabricated the counterbalanced drawbridge and got it installed. Manny put in a new septic system down the hill and Sam Roberts plumbed it in. Dean had evaluated various crops as a source of oil for his biodiesel operation and planted avocado trees. They would yield almost 300 gallons of oil per acre. Avocados do well in the mild-winter areas of California, Florida and Hawaii. Some hardier varieties can be grown in the cooler parts of northern and inland California and along the Gulf Coast. The northern limits in California are approximately Cape Mendocino and Red Bluff. Avocados do best some distance from ocean influence but are not adapted to the desert interior. West Indian varieties thrive in humid, tropical climates and freeze at or near 32° F. Guatemalan types are native to cool, high-altitude tropics and are hardy 30 - 26° F. Mexican types are native to dry subtropical plateaus and thrive in a Mediterranean climate. They are hardy 24 - 19° F.

Gunny also brought in the generator, a diesel unit. The wind turbine was outside of the castle but with Dean producing more biodiesel that didn’t appear to be a problem. The generator was new and could be run on B100. While the present power system wasn’t overloaded, if they started to get occupants for the additional homes that Jim had bought in, it could happen. Nearly six months after beginning the project, the wall completed the circle and reached the drawbridge.

“50 something year old men aren’t supposed to work 12 hours a day, 7 days a week April. I think I’m going to sit on my butt and watch the world turn.”

“You earned it.”

“Are our grandkids still alive? The last thing I remember was talking to Dean about having a family picnic. I believe that it was the day that Linc and Selma showed up.”

“It’s almost Thanksgiving, Tom. It would be too late this year to have a picnic.”

“Did you change your bread recipe? It’s different somehow.”

“Selma has been baking the bread since they got here, 8 months ago. Are you still taking the vitamin supplement?”

“You mean the Prozac? Haven’t taken any for about 4 months, didn’t have the time, or the need.”

“How did you know it was Prozac?”

“Rob told me. He suggested that as busy as I was I wouldn’t need it any longer. I guess that I got depressed because I wasn’t keeping busy enough.”

“Maybe the war and the caldera had something to do with that, do you suppose?”

“Maybe. What is the caldera doing these days?”

“It’s settled down and hasn’t smoked since mid-summer.”

“What are we doing for Thanksgiving, having the kids in?”

“No, we’re having a community Thanksgiving dinner in the dome. We’re taking advantage of the ovens and cooking several turkeys at once.”

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“What kind of orchard did you plant Dean?”

“We transplanted avocados saplings. They’ll produce a lot of oil, but it takes a while to get the plants going. It’s an experiment to see if they will grow in this area. Meanwhile, I been producing alcohol out of the excess grains and I’ve converted all of our excess animal fats to B100 biodiesel.”

“What is our situation on fuels?”

“We’re down on #2 diesel because of the construction. I’m slowly replacing it with the biodiesel. Once I can harvest an avocado crop, we’ll be in better shape. We’re introducing B20 fuel for the vehicles so we can get them cleaned out. Once that’s well along, we’ll go to B50 and eventually B100.”

“How much potential is there in fuel with what you have planted?”

"We put in 1 acre of trees, Tom. We can get almost 300 gallons. We should be able to feed the pulp to the hogs, it's a good source of fiber."

"That's a lot of fuel per acre."

"It's optimum, partner. It could easily be less or the trees might not grow well in this area at all. If they don't we could either plant new trees lower down or switch to another crop. 200 acres of canola would produce 85% of the oil we'd get from 100 acres of avocados. Canola is the plant that produces canola oil."

"How are you planning on extracting the oil?"

"Probably by cold pressing them, that's the easiest and doesn't require any hard to get chemicals. I don't need to be an engineer to manage that. I would need to use steam to extract the canola oil."

"We'd probably better keep things simple. Is anyone helping you with the biodiesel fuel operations? It might be a good idea for someone else to know how to produce it."

"Garry is working with me on it part time. He doesn't have all that much mechanical work, except when we break another machine."

"Most of our equipment is old and worn out, Dean. I'm surprised that Garry and Gunny can even keep it working. I've done my part for security, so it's up to you to keep us in transportation. No matter what happens now, we're safe behind this wall with a dome to take cover in. Who keeps track of our provisions these days?"

"Your wife does, she has it all on your computer. Was there anything in particular that you wanted to know?"

"I just wanted to know how long we could go if we had a crop failure."

"I can tell you that without even asking April, Tom. All of the storage trailers are full. Last week we brought in a mixed load of paper products. It filled us in on anything we'd been short of. At the moment, the only thing we're short of is fuel."

"Just diesel, right? We're ok on propane?"

"Right."

"They're serving dinner, let's get in line."

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"Back when I was working on the wall, Jim suggested that we move into a mobile home and tear down this old house."

“Dean and Avis did that already.”

“I didn’t know that and Dean didn’t mention yesterday at the Thanksgiving dinner. When is Rob’s birthday?”

“Tomorrow. I’m going to bake a cake and have Dean and Avis and all of the kids over.”

“Did you get him anything for his birthday?”

“No. Shelly said that there wasn’t anything that he needed or wanted. She’s not getting him a present either. Samantha, Shelly and I talked it over and agreed to limit presents to the grandchildren.”

“Just birthdays or does that go for Christmas too?”

“It’s all inclusive.”

“Damn.”

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“I understand from Dean that we’re short on diesel fuel.”

“We are at the moment. It got too cold for the avocados, so that experiment of his failed. He was telling me this morning.”

“Two steps forward and one back, huh?”

“That’s one way of looking at it I suppose.”

“We need fuel, Jim and I’m fresh out of ideas. I can’t see paying those people in Monterey \$5 a gallon for fuel.”

“It’s \$6 a gallon now. The people up in Tracy started their own biodiesel operation. I could contact them and see if they had any to sell and how much they want for it.”

“Do we have enough fuel to last until we can harvest and process canola next year?”

“We’ll run out of fuel about the time we get the crops planted.”

“I guess you’d better talk to Tracy then.”

“There is one other thing we could do. It’s a long shot, but it would be more affordable.”

“What’s that?”

“We could try and harvest used cooking oil from all of the closed up restaurants and grills. Maybe we could also get some from donut shops, they fried donuts in oil.”

“That reminds me, Jim. I read a story once where they took a train or something and went to food processors that used large volumes of oil to cook foods. They recovered a lot of it and converted it to biodiesel. Our biodiesel facilities wouldn’t handle a large volume of oil, but if we could find enough and swap it with the people in Tracy would we be ok?”

“We’d have more than enough provided we didn’t need to run the generator. At 50% power it burns 13.3gph and at full power 27.2gph.”

“We have 24,000 gallons of fuel transport capacity. April and I have consistently planned for the worst case. We have 235kw of power from the solar panels. With the wind turbine, that would be more than adequate. However, what if we got ourselves surrounded and whoever was behind it cut the power from our turbine? We could get by in the daytime well enough, but what about the nighttime? I think we should plan on 12 hours a day at 50% power for a year. That would be close to 60,000 gallons of diesel. $13.3 \times 12 \times 365.25 = 58,294$. We’ll need two more of the double bottom fuel transports and have them full of fuel all the time just to supply the generators. The 18,000-gallons in our underground tank would be more than enough for our vehicles. Can we find any empty tankers?”

“We bypassed several on I-5. It wouldn’t be any trouble to pick them up, if that’s what you want.”

“There have to be a lot of food processors in the San Joaquin Valley. If we checked the B2B Yellow Pages we could probably come up with several. I’ll tell you what, Jim, try and find three of the empty double bottom tanker rigs and we’ll use one for dirty oil and the others for biodiesel. When you talk to the people in Tracy ask them if they do the exchanges like the company in Monterey and how much a gallon they charge to convert our used oil to biodiesel.”

“Ok Tom, I’ll try and raise them on the radio. When I get an answer, I’ll find you and let you know what they say.”

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They’ll convert it at 100% if we provide the alcohol. The rate is the same as Monterey used to be, \$1.50 a gallon or \$5 a gallon without exchange.”

“What about the tankers?”

A Family Alone – Chapter 39 – Energy

“I dispatched our 3 tractors to pick them up. I found a B2B Yellow Pages and located several companies that probably fried their products. That doesn’t mean that someone hasn’t beaten us to the punch and cleaned out their oil, but it’s worth a try.”

“It’s a shame that we don’t have more of those 18,000-gallon tanks.”

“Containment Solutions had a plant in Bakersfield. They manufactured single wall and double wall fiberglass tanks. They made tanks up to 40,000-gallons. If I recall, that one was about 10’ in diameter and 70’ long.”

“Any chance we could find a couple of tanks if we went to Bakersfield?”

“All we can do is look Tom. And bring back the biggest tanks we find. I’ll use the attitude that bigger is better and more is good.”

“Sounds like a plan.”

◦

“Tom, we have the three tankers. We’re going to take 2 flatbed trailers to Bakersfield and see about the tanks. Even if we find them I don’t believe we can bring back the 40,000-gallon tanks. We shouldn’t risk hauling anything much longer than 50’. That will mean either 2 25k or 2 30k tanks.”

“Two 30s would be perfect.”

“We’ll try.”

◦

“Manny, we need holes dug for two fuel tanks. The tanks are 10’ in diameter and you’d better allow for a length of 60’. Jim’s people are going to Bakersfield with 2 semis to get 2 tanks. I’m going to find Sam and talk to him about putting in the plumbing.”

“You do know that the avocados spoiled, don’t you?”

“I heard. What we’re looking to do now is find used frying oil from food manufacturers. I know we could try Mission Tortillas in LA, but there should be several firms in this Valley with oil too. It’s just a loose end I’m trying to tie up. I didn’t realize how much of our diesel that construction project took.”

“Sometimes you remind me of Dean, Tom. Have you ever noticed how Dean gets so focused when he’s working on a project? When Rob and you were working on the wall,

you were just as bad. Dean has been working so hard on getting the biodiesel project going. He has the alcohol and lye, but doesn't get much animal fat."

"If what we're going to do now works out, Dean will become very important to us Manny. He'll be able to process used vegetable and animal fats and keep our fuel tanks topped off. Assuming Jim's people can get us 2 of the 30,000-gallon tanks, we can convert any used oils we find to biodiesel through an exchange with the folks in Tracy. If we end up with any extra, Dean can process it and keep our tanks topped off. In addition to 60,000-gallons in the new tanks, we'll have 18,000-gallons in our old vehicle tank and possibly another 64,000-gallons in the 4 clean fuel tankers."

"Why do we need so much fuel, Tom? We don't drive that much."

"That standby diesel generator Gunny got burns anywhere from 6 to 27gph. This would allow us to withstand a long siege if any bad guys showed up."

o

"Dean can you tell me what your daily production capacity is for biodiesel?"

"500 gallons. Why?"

"Feel like converting some used vegetable oil to biodiesel?"

"If you can get the oil, I'll make the fuel."

"Great. I might have a line on some used oil."

"For sure?"

"No, not for sure. We got 3 additional empty tankers and are looking for additional underground tanks. We're going to go to major food processors and take their used oil. We'll convert some through the folks in Tracy and you can convert the rest."

"I'd better get going on another batch of alcohol then."

o

"How do we get the oil out of the tanks if we find it?"

"They must need to change their oil periodically so they'd have a system to allow them to do that. Take one of the 12kw generators and a large bottle of propane. Hopefully you'll be able to power any equipment you find. We may need a pump so try a rental place and find one of those wastewater pumps they rent to people to pump large amounts of water when they get flooded. Once you get the tank filled, drive it to Tracy and drop off the oil. If there's more oil at that location, keep going back until you get it all

and then you can move to the next location. We'll dispatch one of the fuel tankers to Tracy to pick up the biodiesel and pay for the conversion."

"And if we don't find any oil?"

"We'll just have to pay Tracy full price to make sure we don't run out before we can harvest the crop and extract the canola oil."

o

They wouldn't have found much oil in Fresno; there weren't any of the food processors that used oil to process food. Oil turned out not to be a problem, they found new clean cottonseed oil at several different locations. Once they had a 30,000-gallon tank full, they stopped buying converted oil from Tracy and they noted food processors that had stores of used oil for future use. Dean was pleased that he wouldn't have to find some way to extract the canola oil from canola plants. Canola was a noxious weed that even insects wouldn't eat. Because the cottonseed oil was new and clean, they concluded that they could fill the tankers with the oil and once it was converted, use them to store the biodiesel. They had 72,000-gallons of oil to convert, having filled all of their tankers. One tanker still contained gasoline.

"Was that all they had in Bakersfield, 2 30,000-gallon tanks?"

"I thought that was all you wanted. No, there were dozens of tanks in various sizes from 500-gallons up to 40,000-gallons. Do you want more?"

"More would be good, you said so yourself."

"I'm not going to try and haul those big tanks but we'll go back and get the other 2 30k tanks we left sitting."

"Get an 8,000-gallon tank while you're at it and we'll store that gasoline underground. That will free up that trailer and we can fill it with cottonseed oil too."

o

"This will take forever," Dean chuckled. "I'm not complaining but I wonder why no one else has gotten the cottonseed oil."

"Don't put a hex on us Dean. We'll try to keep an inventory of raw materials for you of 80,000-gallons. Jim is going to get the other 30,000-gallon tanks from Bakersfield and you have some place to store your biodiesel production. If you'd like, I'll help you with the diesel production."

"Could we fabricate another setup to process an additional 500-gallons a day?"

“Who built you this equipment, Dean?”

“Sam and Gunny.”

“I’ll talk to them about building another. You can teach me and we’ll each run a processor. I’ve noticed that when I keep busy, I feel much better.”

o

The castle hadn’t been built in the exact location of the acreage. Tom had elected to build it around the dome with the dome in the center of the larger circle. It had taken weeks to rearrange everything inside the walls. Fortunately they’d had the mild winter and by the following spring, things were relocated, 2 biodiesel converters operating and all was well at Patton’s castle. Tom and April had moved into a singlewide and demolished their old home. The younger children were growing up and getting married. They weren’t recruiting families for the acreage anymore; they were growing their own.

“How’s it going Linc?”

“Fabulous, Tom. We placed the Claymores up against the castle walls and used them up. We only planted a few ATMs, mostly where we pulled out the road. There are a few of the M-14 APMs planted too, but I held off on the M-16s. They’re a nasty piece of work. Selma is running the bakery and was talking about producing various breakfast rolls. We picked up some golf carts for the sentries to use making their rounds on the wall.”

“Do you regret deserting the Army?”

“What’s to regret? They probably didn’t have the means to pay my pension regardless.”

“What was the situation with the government when you left?”

“Chaotic. Executive Orders had been invoked; FEMA was running the show and using the military to implement its decisions. For all practical purposes those nuclear attacks ended the country, as we knew it. It will be years before the areas that got ground bursts are free of radioactivity. I don’t have any idea what happened after the caldera blew, I came here.”

“Do you approve of the changes we’ve made?”

“Mostly. If the military really came after this place they could stand off several miles and use artillery to knock down the walls, or bomb it. Short of that, I think we’re secure.”

“We only had one attack by a small gang of thugs.”

“Then you were lucky. Rather than trying to wipe out groups that formed in some areas, the Army went for containment. You know what I mean; they cut off roads and loosely encircled them. I don’t know if they continued it when the caldera blew or not. Our communications weren’t the best so we didn’t get much information.”

“What kind of groups are you talking about? Gangs or survivalist groups?”

“Both. It included any organized group that wouldn’t kowtow to their demands. I’d have to include this group on that list, except it was too small and too far away from Fresno. The folks in the city got most of the attention. I rather surprised that the Army hasn’t been back. That Major wasn’t an exception; there were several officers like him.”

“That makes it difficult to define who the enemy is.”

“No it doesn’t, Tom. The enemy is anyone and everyone who would try and destroy what we have here or try to take it from us. In some ways, this castle of yours is prophetic. I don’t believe we regressed 100 years, but more like 500 years. Society is almost feudal.”

◦

Feudal society is a sometimes debated term used to describe the medieval social order of western and central Europe and sometimes Japan (particularly in the 14th to 16th centuries) characterized by the legal subjection of a large part of the peasantry to a hereditary landholding elite exercising administrative and judicial power on the basis of reciprocal private undertakings. The term’s validity is questioned by many medieval historians who consider the description “feudal” appropriate only to the specifically voluntary and personal bonds of mutual protection, loyalty and support among members of the administrative, military or ecclesiastical elite, to the exclusion of involuntary obligations attached to tenure of “unfree” land.

◦

“Are we going to try and recruit more people?” Jim asked. “We have the infrastructure to support more families. I only bring it up because with more people, we enhance our security.”

“We could use a doctor,” Rob responded. “I truly dread the day when anyone gets really sick or badly injured. Were that to happen, I’m convinced they would probably die. If we could get a portable X-Ray machine and a radiological technologist, it would be a big help. A Board Certified Radiologist would be too much to hope for, I suppose.”

“If that’s a concern Rob, we’d have to set up something more elaborate than a clinic.”

“We have more than enough room on the 3rd floor of the dome to set up a real medical facility, Dad. What we don’t have are the human resources and equipment.”

A Family Alone – Chapter 40 – Medicine

“A typical hospital has radiology and a lab. They also have a surgery and a means to provide therapy. At best I’m operating an outpatient clinic. I’ve only had a single gunshot wound to treat, yours. Most ailments have been common colds and a few simple fractures. We lack any real medical supplies beyond basics. On top of everything else, most of our drugs are expired.”

“Let me break this down, Rob you’re talking about several things: facilities, equipment, personnel and supplies, is that about right?”

“Generally speaking yes.”

“If anyone has current supplies, it would be the military or FEMA. Personnel and equipment are totally separate matters. We can scrounge equipment. We’ll need to recruit personnel. Who wants to do what? And, most of all, how do we want to approach the entire problem?”

“Jack, Linc and I will acquire supplies, if Rob will give us a list,” Gunny offered.

“There is an abandoned hospital in Fresno. If the radioactivity level is low enough, we might be able to get equipment and some supplies.”

“If the weapon didn’t take out all of their equipment with the EMP, we could all get diagnostic and lab equipment there. That will leave us short a physician, a dentist and nurses or assistants plus the specialists Rob mentioned like physical therapists, lab people and the radiologist.”

“Let me check my crystal ball and see if I can locate doctors and dentists,” Tom joked.

“I’m going to radio the folks up in Tracy. It’s only a little ways out of San Francisco and possibly they got some refugees with medical training.”

◦

They acquired the following equipment from the hospital: Siemens Mobilett Plus Portable X-ray machine, an Acuson Sequoia Ultrasound System, both Ortho Clinical Diagnostic’s Vitros Chemistry System 950 and System 250 and the Vitros Immuno Diagnostic System. In addition, they got 6 beds, 2 gurneys, oxygen equipment, vacuum equipment, and routine supplies like bandages, IV sets, etc.

The 3 military men took some of Dean’s moonshine and went looking for a supply Sergeant with a thirst. Everything they brought back 3 days later was current and it included IV solutions, antibiotics, vaccines, and a selection of generic medications to treat hypertension, etc. Rob immediately set up a schedule to vaccinate all of the newborns and new residents. Over time, he had prepared files on each person who lived at the acre-

age and the file included their medical histories, known allergies, and so forth. Tracy had people who had worked at the University of San Francisco Hospital and an East Bay hospital. With these people, the only personnel they were short were the physician, dentist, and nurses.

Not all doctors marry nurses. Some marry other doctors and some marry their receptionists. When they finally found their doctor, they got a set, an Internalist and a Surgeon. She diagnosed them and he fixed them. They still didn't have a dentist – all they had were toothaches.

Add:

22. Drs. William and Jean Wilson, Cynthia and Joseph (4) Physicians

23. John and Mary Jones, Shirley (3) Imaging

24. Rudy and Maria Martinez, Javier, Ramon and Evita (5) Laboratory

25. Robert and Sharon Paulson, Laura and Derek (4) Physical Therapy-both

◦

“Doctor if you could make a list of things we need to add to the hospital, we'll attend to it.”

“The clinic is well equipped Rob. Jean can use it to see patients. I'm going to need surgical instruments, an autoclave, anesthetic gasses, anesthetic drugs, and a surgical table. I see you have oxygen and vacuum, but we'll need a monitor for the patient.”

“Doctor, if you want to come with me to the hospital in Fresno where we got the equipment we can pick out whatever you need. Some of the equipment there is junk, wiped out by the EMP. However, some survived in good condition. We didn't have any idea what we would need so we didn't bring it. I can't promise we'll find everything you need, but we can look.”

“Have you typed all of the residents in case we need to do a transfusion?”

“I pulled the blood samples and Rudy is working on that.”

“I hope we don't have anyone with a rare blood type.”

◦

There is no universal blood donor type. Donated blood is routinely classified by type as A, B, AB or O, and as Rh positive or Rh negative. In the past, people with Type O/Rh negative blood were considered universal blood donors. This implied that anyone, regardless of blood type, could receive Type O/Rh negative blood without risking a transfusion reaction.

But scientists now have a much better understanding of the complex issues related to reactions to incompatible blood donor types. Even donors with Type O/Rh negative blood may have antibodies in their blood that cause serious reactions. Before a blood transfusion, small samples of the recipient's and donor's blood are mixed to check compatibility. Doctors refer to this as cross matching. Despite these precautions, an adverse reaction may still occur.

Over 60-percent of all needed transfusions are plasma. Plasma is the liquid part of your blood that carries your platelets, red cells and white cells through your body. Often, patients are better served by receiving only the component that is best to treat their particular illness. Plasma supports the recovery of hundreds of patients suffering with liver disease, severe burns, hemophilia, and leukemia. Transplant and cardiac patients are also helped by plasma transfusions. Plasma provides essential clotting factors to these patients.

Plasmapheresis is the separation of the plasma from the rest of the blood and requires the use of a special apheresis machine. The machine draws blood from the donor and runs it through a centrifuge that separates the plasma, then immediately returns the rest of the blood to you. Three whole blood donations equal one Plasmapheresis donation. Plasmapheresis, like whole blood, only requires the use of one arm for donation. The experience is more comfortable than with other blood donations because a smaller size needle is used. Plasma products can be frozen in an ultra-cold freezer for up to one year after donation to preserve the valuable clotting factors. These factors do not survive in plasma stored at room temperature.

A plasma transfusion is blood type specific. It takes all blood types to meet the needs of the patients in the area. However, even though O- is the universal blood type when it comes to red cells, AB donors are considered universal when it comes to plasma. The Plasmapheresis program is ideal for those AB+ or AB- whole blood donors that are not often called to donate whole blood, but would.

The approximate distribution of blood type in the US is: O+ 38%; B+ 9%; O- 7%; B- 2%; A+ 34%; AB+ 3%; A- 6%; and AB- 1%. Autologous donation allows you to donate your own blood for your own use. Allogeneic donations refer to a community blood supply. In an emergency, anyone can receive type O Red Blood Cells, and type AB individuals can receive Red Blood Cells of any ABO type. Therefore, people with type O blood are known as "universal donors" and those with type AB blood are known as "universal recipients." In addition, AB Plasma Donors can give to all blood types.

o

They retrieved an apheresis machine and began storing type AB plasma, just in case. It was stored in a special freezer for storing Fresh Frozen Plasma - capable of temperatures down to -86° C. Was blood type going to be the next qualification for residency? They needed type AB blood to produce universal plasma.

It wasn't, of course, and the enclosure slowly gained more residences, all singlewide mobile homes. The livestock was pastured inside and land outside of the facility was tilled and grew their food. It wasn't too long before they ran out of space to store fuel because of their weekly production, 5,000-gallons. Two men each producing 500-gpd can produce a lot of fuel in 5 days. And as eventually happens, their batteries began to fail, finally forcing them to run the generator during the nighttime, which inadvertently helped solve the fuel storage problem. With more land to farm, they made a second trip and found more farm machinery.

There was enough cottonseed oil to keep them in vegetable oil and fuel for several years but paper products started to get scarce. The San Joaquin Valley is home for at least a dozen cottonseed oil producers. It also produced more cotton than most any other place in the country, before the war. Jack, Linc and Gunny got more shine and went looking for their supply Sergeant. It worked, but they were quickly reminded that the military always buys its products from the lowest bidder. Have you used the cheap commercial toilet paper recently? It ain't Charmin.

o

The Dentist was their last professional. Dr. Dan Corcoran came from a community in the central valley, Porterville. He was young, maybe 30, and single. He had barely started in practice when the war occurred. His dental hygienist, Suzanne Bailey, and he had a relationship. That is what they call mutually convenient arrangements (shack jobs) these days isn't it? He had a touch, you had to give him that, and Suzanne was attractive enough to distract some of his male patients. They had a bumper food crop that summer and decided they could cut back the following year; storage space was at a premium.

Add; 26. Dr. Dan Corcoran and Suzanne Bailey (2) Dentist/Hygienist

"Tom, we need to call a meeting, I think maybe we have trouble headed our way."

"What's going on Jim?"

"We heard on the radio that a group in the High Dessert around Edwards Air Force Base has been raising hell. One ham operator said that they raided the Barstow/Yermo facility and helped themselves to a lot of weapons and munitions. He didn't think they had any tanks or artillery, but they're a large, well-armed group. They've been raiding communities and slowly working their way north. They hit Bakersfield and apparently took those residents down there prisoner."

"Let's have a meeting and talk this over."

o

“Jim tells me that we might have trouble headed this way. Jim, please outline what you heard.

“I got this from a ham in Tehachapi, and I can’t vouch for its accuracy. Apparently a group from the Antelope Valley raided Barstow/Yermo and secured weapons and munitions. After exhausting the resources down there, they moved on Mojave and California City. Later they hit Tehachapi and finding little worth taking there moved on to Bakersfield. The latest information I have is that they’re moving up state route 99. They made it as far as Delano. That’s all I know for certain.”

“If they’re coming up 99, the next big community they would come to is Tulare. After Tulare, they could hit either Visalia or Hanford. After that, the only thing between them and Fresno is Selma. There isn’t much in Fresno for them to get so they’ll probably either continue up 99 or come up 41 to get to Yosemite.”

“There isn’t anything where our road junctions with 41 to attract their attention is there?” Gunny asked.

“There shouldn’t be, no. The only thing I can think of is the stubble in the fields where we farmed this past summer.”

“Do we know any more about this group?”

“The ham suggested that they might have escaped from the state prison in Lancaster. He didn’t know if they gone to the prison in California City or Tehachapi, but if they’re cons, it’s even money.”

“Did he say how many of them there were?”

“In the low hundreds.”

“Fellas,” Jim began, “Linc did a good job of disguising the old road, but the new road is an entirely different matter. If it were warmer weather, we could transplant some shrubs and conceal the new road. However, I can’t see where we could do that this late in the year. I expect it will be up to our Bradley CFVs to act as a blocking force if they stumble on either road and try to head here.”

“Why would they come here, Jim?” Linc asked. “If they try to come up the old road they’ll hit the minefield. If they come up the new road, we can chew them up with the Bradley’s. I can’t see where the risk to us is.”

“In either event, they’ll know someone is to their west. If I’m any judge of human nature, they’ll want to know what. Not knowing what’s behind could pose risks to them. If they see any signs of life I’d expect them to come in by one of the roads.”

“I don’t see that it’s a problem either,” Tom suggested. “We can outlast them. Provided the siege doesn’t last more than a couple of years, that is.”

A Family Alone – Chapter 41 – Helter Skelter

Preparations for a possible attack were orderly. Magazines were loaded and they and ammo distributed to strategic locations on the wall. Chunks of thick logs were also placed along the wall for the shorter people to stand on. Jim dispatched scouts to keep an eye on route 41, just in case the bad guys might come their way. A snowstorm deposited 3-4" of snow obliterating overt signs of the new road they now used.

"You should have named this fortification Tom's Place."

"Dean, the name was taken; Tom's Place is over on 395."

"Was over on 395, the eruption obliterated it."

"Strange name."

"It was a little resort. Tom's Place was originally built in 1917 by a German man named Hans Lof. It all started with a much-needed gas station to fuel the traffic moving up from Southern California. Lof built a cookhouse, added a store and corrals, and then started packing people into the mountains for a wilderness getaway. In 1923, Thomas Jefferson Yerby and his wife, Hazel (stage actress, Jane Grey) purchased the business for \$5,000 and Tom built the original Tom's Place Lodge in 1924."

"So the place was named after the lodge?"

"It would seem so, yes."

"Do we need to process any more biodiesel?"

"Full up at the moment, Tom. All of the vehicles are filled and we don't have space for more than 50 gallons."

"I hate waiting, especially for trouble."

"I agree. I'm not sure which is worse, knowing that you're going to get attacked or sitting around wondering whether it might happen."

"With the snowstorm, they'll probably drive right on by."

o

"What are they doing?"

"They've stopped and are looking at the old road signs. It appears to me that they're trying to decide which way to go."

“Left, turn left, please...”

“Talk louder, I don’t believe they heard you.”

“Crap, I think maybe you’re right. What are they doing now?”

“It would appear that they’re dividing up. Most of them are taking your advice and turning left, but some are coming our way.”

“Castle, scout.”

“Go ahead scout.”

“We have a small party headed our way.”

“10-4. Is it a small enough group we can take them out before they get to Hildreth?”

The smaller group is about 600, fort.”

“10-4, RTB and don’t leave any tracks in the new snow.”

“Roger.”

“Linc, I think you’d better move the Bradley’s up.”

“Ok Jim. I’ll take one, Gunny a second, Jack a third and do you want to take the last?”

“Dean will drive and I’ll take the gun,” Tom interrupted. “We need another person and someone to handle the TOW missiles.”

“Are you sure? We can get some younger people.”

“Put them reloading the TOW, their heavy. Firing the Bushmaster doesn’t require much effort.”

“I’ll drive, but could someone tell where the starter is?” Dean joked.

“Who is in charge, Gunny, Jack or Linc?”

“Linc will give the orders.”

“Fine, be sure and raise the drawbridge when we’re outside. Don’t forget to drape the curtain so they can’t shoot anything in between the top of the gate and the bridge over the gate. Got your rifle, Dave?”

“I’m ready Tom, let’s do it!”

◦

“Here they come. Linc tell them to get in the fort. If these Bradley’s don’t stop the bad guys, 2 scouts won’t make any difference.”

“Click, click.”

“Dean, I’m going to use the 7.62 coax. We’d better reserve the 25mm for later. How far are we from the road?”

“Maybe 2½ miles, we’re halfway between the castle and the road. It’s too far for the coaxial gun.”

“That’s about the limit of the range of the big gun, too. Linc, do you want us to move up?”

“Negative, remain in place.”

“10-4.”

The scouts had left their vehicle in the woods and gotten aboard a snowmobile. Linc instructed them to return to the castle and button it back up. The curtain was a piece of flexible mesh draped from the bridge that was built over the drawbridge. It was intended to catch something like an RPG if it were fired just above the drawbridge. RPGs weren’t particularly prevalent in the US, but it would stop a LAW or an AT-4. Most of the RPG like weapons had a limited range and couldn’t reach the dome from outside of the wall.

◦

“Cross your fingers, they’re beginning to pass,” Linc instructed.

“Clear, that’s the last one. Ok, everyone RTB.”

Kaboom...

“What the hell was that?” Tom started.

“Linc was that one of the landmines?” Dean asked.

“Affirmative. Move to the old road and take up a position to repel them. Move up to about 1 mile from the road when we get there. Use the coaxial machine guns. Move... they’re clearing the minefields.”

“How?”

“Hand grenades. Open fire when you’re in position.”

Linc’s minefield was only 200 meters deep, 100 meters of M-19 ATMs and 100 meters of M-14 APMs. There was a burning pickup, or what remained of one, that had apparently hit an ATM. The bad guys were tossing hand grenades in an attempt to force the ATMs and APMs to explode in place. Their tactic was working. The 25mm Bushmasters opened up and destroyed several more vehicles. .50 caliber bullets began to ping off the Bradley’s. It wasn’t a problem, the M2A2 / M3A2 could handle up to 30-mm cannon fire.

“We’re getting low on ammo. Linc, we’re about out of ammo.”

“10-4. Get ready to pull back. Castle, lower the drawbridge, we’re coming in.”

◦

“How long did you say we could stay here buttoned up?”

“About 2 years; longer if they don’t take down the wind turbine. Jim, what’s our situation?”

“The scouts reported that they divided their force with about $\frac{2}{3}$ of them going up 99. They have some HMMWVs in both units. They probably have radios. We can monitor them with the CCTV camera.”

“Bonk...bonk...bonk...”

“Turn that alarm off. That’s the wind turbine, the generator was already up.”

“Here you go fellas,” Selma said handing them a large plate of apple fritters. “Enjoy them, I don’t have a lot of the apple fritter mix left.”

“We’re getting suppressing fire on the walls,” Jim advised.

“Damn, I sure wish we’d have installed the Bouncing Betty’s.”

“I did,” Linc smiled. “After Jim told us about the radio message from that ham, I installed all of them outside of the dry moat. They’re sparely distributed but they’ll be easy to move come spring because I only put them in the snow.”

“Snug as a bug in a rug, huh?”

“Try the apple fritters, Selma outdid herself.”

◦

"With the mobile homes up against the wall, I doubt they'll hit them with any of their weapons. How many of them are there now?"

"About 30 minutes ago, the other group came in and joined them. Jim seems to think that there are about 2,000 altogether."

"Are we encircled?"

"Apparently, yes."

"Good, it's supposed to get down to zero tonight. What's Jim doing about sentries on the wall?"

"I have 12 people on the wall Tom, one about every 100 yards. They're just observing and not returning fire. The guys outside are starting to group up."

"Dave, what do you have for missiles? Do we have any LAWs or AT-4s?"

"We have a few, what did you have in mind?"

"Pass out whatever you have and around 0300, drop a rocket into the groups."

"I'd rather save the LAWS for later; we can do that with the 40mm grenades."

"I told you that we should have gone to Barstow/Yermo," Jim shook his head.

"We don't need to now; we can just wait until they're all frozen to death and collect their weapons."

o

"How is everyone doing?" Rob asked. "Did anyone get hurt while you were outside fighting?"

"Rob, the only thing we got hurt was our feelings. They managed to get through Linc's minefields and get to the castle. They have us surrounded."

"All right, they're on our left, they're on our right, they're in front of us, they're behind us... they can't get away this time." (Lieutenant General Lewis B. 'Chesty' Puller (surrounded by 8 enemy divisions))

"They've got us surrounded again, the poor bastards." (Creighton W. Abrams, Jr. (during the Battle of the Bulge))

"Somebody shoot of a flare, we wouldn't want them to fall asleep yet."

A Family Alone – Chapter 42 – Long Night's Journey into Day

Eugene O'Neill died in 1953 and his story was the other way around.

"It's just a shame we don't have any firecrackers."

"The hell we don't, I've been improvising for years."

"Pass some out, Gunny, and just when they get to sleep, have someone toss another string."

o

"Get them passed out?"

"Yep, they'll stop at 0200 and let them really get sound asleep for our 0300 attack."

"How many hand grenades do we have?"

"Maybe a couple of hundred, why?"

"When, eventually, they try to rush the place it might be nice to have some grenades to toss over the wall into the dry moat."

"Would M116A1 hand grenade simulators work? I have a lot of those and M115A2 ground burst simulators."

"How many is a lot?"

"I have more simulators than grenades and more of the ground burst simulators than hand grenade simulators. Those things come with a warning that says, 'The M115A2 Ground Burst Projectile Simulator is more powerful than the M116A1 Hand Grenade Simulator. It is not to be used near personnel due to potential hazard from fragmentation. Do not throw M115A2 Simulators within 35 meters of unprotected personnel. When using the M115A2 Simulator, the thrower should turn away from the Simulator and get into a protective stance after throwing. The safety radius of the M116A1 Simulator is 15 meters.' They can hurt you if you're too close."

"How did you come by those?"

"We all know the military never makes mistakes, but civilians do. Must have been a typo and the white out flaked off. They were shipping the things to us in sets, 5 cases of M115A2s and 3 cases of M116A1s. We ordered 1 set and got 11. The extras were set aside to be returned and overlooked. One of my buddies was bitching about all of the space they took and I offered to help him out. Altogether, I have 80 cases of the things."

"Where are they?"

"Stored."

"Pass them out tomorrow, will you, Gunny? Put some at every one of the positions on the wall. We'll use those up before we resort to our hand grenades."

"We have a dead zone on our CCTV camera coverage," Jim pointed out. "We put the camera on a 60' mast above the dome so it is 120' above ground level. However, it is 1,076' from the outside of the outer wall so we can't see the dry moat or area just on the other side of it with the camera."

"Can't we mount some cameras on the walls?"

"Sure we can, do you have any? I don't. Your castle is very secure, Tom, but it's not without its shortcomings. Anyone raising his or her head above the wall has attracted fire. We've been lucky, so far no one has been wounded or killed. The grenade attack you're planning for 0300 won't stand much repeating either. They're bound to move their lines back out of the range of the M203s."

"I don't suppose you put in an escape tunnel to get us out of the castle if we did get overrun?"

"I didn't think we'd need one," Tom replied.

"We probably don't, Tom, but if we had one we could get behind them and screw with them a little."

"If I had put one in, it wouldn't have gone more than 200-300-yards beyond the dry moat in any event. If you're right about them pulling back, we'd still be inside their circle. I'm going to get some sleep. Someone wake me up at 0230, I don't want to miss the fun."

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The sound of the 40mm grenades exploding woke Tom. They let him oversleep and he was irritated. Very.

"What the hell? They were supposed to wake me."

"You needed your sleep. I wouldn't let them wake you."

"I guess it's all over now. Darn it, I wanted to watch."

"And get your head shot off? You can look in the morning."

"Well, I'm awake now so I'm going to check in with C³I."

“Hey guys, how did it go?” Tom asked when he made it to the 4th floor.

“Varying results, but overall good. We probably killed or wounded 100 of them. They returned fire but also dropped back.”

“Anyone hurt?”

“Not inside the castle, no. They must have had someone in their group with a military background because as soon as they got their stuff together, they pulled back about 500 meters. Now we can watch them with the TV camera.”

“How are they equipped?”

“From what we could see and what we learned yesterday, rifles, handguns, shotguns and 5.56, 7.62 and .50 caliber machine guns.”

“Nothing heavier? One Mk 19 could really spoil our day.”

“Didn’t see one, no. And, before you ask, they haven’t set up any mortars.”

“Did you pass out the ballistic face shields? Rob and Sherry both had them and when the guys picked up those Berettas from the Sheriff’s department they picked all they could find.”

“They won’t stop a rifle bullet.”

“They’ll stop rock chips.”

“Right, we’ll pass them out.”

◦

“What do we do now?”

“I’ll be damned if I know, it’s a standoff.”

“I thought they might freeze their butts off and leave.”

“Doesn’t appear so Tom,” Dean replied.

“Those are military tents that they must have picked up at Barstow/Yermo,” Gunny suggested.

“Other than some occasional suppressing fire, they haven’t made a move. What do you think are they trying to starve us out?”

“Apparently, they must not realize how long we can hold out.”

“How is the work coming on the tunnel?”

“It took a while to get it started. We went down 30 feet so we wouldn’t cause the dry moat to cave in. We’ve had to shore the thing the entire distance, which was slowing us down. It appears that we’re only making about 15’-20’ a day. We’ve been spreading the soil in the area we’re going to use for crops and we’ve barely created a layer of soil so far.”

“How much longer until we finish?”

“At least 2 months, providing you still want to go the full 2,000’. Why not 1,800’?”

“That’s only 549 meters. We have to go 2,000 feet and get out about 610 meters to reach that little stand of brush. What would that take, another 10-15 days?”

“Provided we don’t run out of shoring material.”

“We cut more of the logs into planks if we have to, I don’t want to come up in the middle of one of their tents.”

“It’s not going to happen. We’ll dig halfway to Fresno if we have to. We’re starting to run into rock so the tunnel is getting closer to the surface. Our best guess is that we’ll be about 20’ deep when we get to the bushes.”

“I’m going to...” Tom stopped talking, grabbed his head and sank to the floor.

“Someone get Rob or a doctor, we’ve got a man down here,” Gunny instructed.

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“Tom’s had a hemorrhagic stroke, Drs. Wilson are in agreement, and I’m afraid that it’s inoperable. He thinks that Tom will die in less than 3 hours,” Rob explained. “He has a large amount of bleeding and is rapidly getting worse. Plus the aneurysm is too deep for surgery, even if we had a neurosurgeon available. I’m sorry Mom.”

“Had a good run didn’t he? I want to be with him.”

A Family Alone – Chapter 43 – Epilog

“That was a very nice service, I think Tom would have liked it.”

“What are you going to do now April?”

“Take over Tom’s responsibilities; at least until we get ourselves out of this fix we’re in. He kept me up to date, how are you coming with the tunnel?”

“We have a way to go before we’ll be ready to go up.”

“How do you intend to put a large group of people out of a little hole in the ground? I never could figure that part out. I think you should have a slope and you could put out our entire force at once.”

“That was never the plan. We intended to put out a few people and do some of that commando stuff.”

“Then I’m changing the plan. Tom and I owned all but one acre of the land that we started with and since I’m taking Tom’s place, we’ll do it my way.”

“What are we going to do?”

“Tom said that you were being forced up because of the rock. Continue that and when you get to the brush, angle the tunnel up steeply. Leave only enough soil to hold the plants in place. We can blow out that patch of dirt and boil out and give them hell. Tom said we had grenades, and those blast simulators. We’ll use those. If we get enough of them maybe the rest will leave. Prepare charges to blow the tunnel in case we all get killed.”

“That’s very likely to happen; you know that, don’t you?”

“What’s that Indian saying; it will be a good day to die? We taking some of those bastards with when we go, count on it.”

“How long is it going to take to get this operation going?”

“We told Tom a couple of months, but maybe we can accelerate that a little.”

“Keep me informed; I’m not going to worry myself to death over this too.”

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“Mom you shouldn’t be doing this,” Rob and Sam insisted.”

“What should I be doing, wearing sackcloth and flailing myself? You dad and I never did things that way.”

“But you’re not a soldier and you don’t have any experience,” Rob protested.

“Neither are you, Rob. You’re a cop and Paramedic and you’ll be there acting as our hospital corpsman. It doesn’t take a lot of brains to pull a cotter pin out of a grenade and toss it. If we can take them by surprise, we stand a fair chance of doing some serious damage. Tom was telling me a couple days before he died that there is a mount for those Bushmaster cannon that they used on ships. Talk to Gunny about that and see if we can fabricate one for two of our guns.”

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“April, Rob says you want me to fabricate some Mk 88 machine gun mounts for our Bushmasters. If that’s what you want, I’ll try and cobble something together.”

“I don’t know the number Gunny but Tom said they used them on ships.”

“Right, they use the Mk 88 mount and call the system the Mk 38. Where do you want them?”

“Put 2 so they can cover our attack from the tunnel.”

“I’m going to have to fabricate some kind of protection for the gunners, too.”

“Do we have any of the ¾” plate left?”

“A couple of pieces from building the drawbridge.”

“Can you use it?”

“I’ll try. I might be able to work something out. We hit some softer dirt. The tunnel is going faster but is taking more shoring.”

“How much will that advance the time table?”

“It should cut it by 20 days.”

“Which will only leave you 6 weeks to perfect the mounts and the armor plates, right?”

“I’m on it.”

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“He didn’t suffer did he?”

“Just when the vessel let loose. He had a very sharp pain and passed out. Never regained consciousness so he didn’t suffer.”

“I thought you were keeping an eye on his health.”

“I was Mom; his blood pressure wasn’t terribly high, 130 over 80. Lord only knows how long he had the weak vessel. Aneurysms are difficult to diagnose without CT or MRI and you have to suspect one before you could make the test. Anyway, we didn’t have either a CT or a MRI so we couldn’t have checked anyway. And, if we had known for sure, we couldn’t have fixed it.”

“As long as he didn’t suffer. Gunny said he make up the M88 mounts for those Bushmasters. We’ll put 2 in the front to cover that attack. If we can use those and our machine guns, we might have them pinned down and our raid will be more successful. We can still use the Bradley’s and their coaxial machine guns, right?”

“The maximum range is 1,700 meters so yes, we can still use them.”

“I’m going to start a batch of bread, I’ve got to keep busy or go crazy.”

“Before you do, go see Dr. Jean Wilson and have her check you over, mom.”

“Rob I feel fine.”

“So did dad.”

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When you’ve known a person for most of your life and have faith, you can accept his or her loss, no matter how painful it is. April was trying to replace her pain with work, a good idea up to a point. Dr. Jean Wilson gave April a comprehensive exam and could find nothing wrong. She nevertheless started April on an antidepressant because when the campaign against the bad guys was over, April would have time to be depressed.

The tunnel was moving rapidly now at three times the pace of before. Gunny fabricated the mounts for the Bushmasters and they were mounted on the wall on either side of the drawbridge. Then someone got a ‘good’ idea and they built a vehicle ramp so they could move a Bradley up to the wall. The Bradley was a tight fit with only 2’ free space on either side. The overall height of the vehicle is 9’ and the width 10’

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“Put up both of the CFVs with the Bushmasters and circle the wall,” April directed. “Take out their vehicles and as many of them as we can. Make random tours and keep them

off balance. Layoff after a day and then do it again a couple of days later. Keep them confused and worrying.”

“We should have done this sooner,” Gunny laughed. “This is what they call a target rich environment.”

“I have a batch of fresh bread if anyone wants to stop by the trailer. I only made 12 loaves but they didn’t come out half bad.”

“Linc, your wife makes a good loaf of bread, but you need to taste April’s.”

“Right and if I liked it better get my head handed to me on a plate? I’ll pass. When do you want to start the harassment operation?”

“There is no time like the present.”

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The tunnel was about 2 weeks from completion when the harassment began. It was an odd schedule, picked at random from a hat with times written on slips of paper. It had the short-term effect of eliminating most of the cons vehicles, effectively trapping the cons outside of the castle. The first pass enjoyed the greatest success with a few hundred of the cons lying dead or wounded. The randomness of the whole affair saw the cons getting organized and hunkering down. Their return fire was ineffective.

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“We’re ready to go,” Gunny announced. “I’ve passed out 3 M67s and a dozen of the M115A2s to everyone participating. The tunnel is mined if we need it and extra ammo stores are near the end of the tunnel for ready access. We make one more pass with the Bradley’s on the wall and then push them out of the castle. That should hold their attention long enough that we can come up in the thicket and start this thing.”

“I’ll get my gear,” April announced.

“Wait a minute April, you’re not going.”

“The hell I’m not Gunny, I’m finishing this fight. I’m leading a squad and if you think you can stop me, you’d better starting looking for the crutches right now.”

“Let her go Gunny, I’ll be on her squad,” Dean suggested. “Tom always said that he never really won a fight with her since ‘86.”

April was armed with a Saiga shotgun and a M4A1 carbine as a backup. She drew her grenades and made her way down the tunnel, her load of ammo nearly staggering her. The Bradley’s made their final run around the castle and burst out over the drawbridge.

They got the go sign over a radio relay and the small charges set to blow out the last couple of feet of soil, roots and bushes were detonated. The cons never even noticed the large patch of soil and bushes disappear, or if they did assumed it must have been caused a 25mm round. They caught the first group flatfooted and wiped them out immediately. They had 4 wounded, none killed. The cons they wounded didn't stay that way very long.

Teenagers were pressed into service delivering additional ammo and the M115A2s. After the group outside the drawbridge was eliminated, the two Bradley's missing their Bushmaster's went back inside and they were reinstalled. Late in the day on the first day, the cons counterattacked. The two Bradley's that were being refitted came out of the castle and stopped them cold.

Sharpshooters deployed to the walls killed some of the attackers and the group, which consisted of 6 squads, worked their way around the circle. They used a pickup as an ambulance and took their own wounded back inside for treatment. Retrieved body armor was passed to the members of the 6 squads as was the cons ammo and ordnance.

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The final tally was castle 1, cons 0. They didn't take prisoners either. The bodies were stacked in a field to be burned in the spring, out of sight of the castle itself. Before they had a chance to burn those bodies, the Army showed up.

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"Where were you when we needed you?"

"We had no idea that they had you folks surrounded. We went to Yosemite and were waiting for them," the Lt. Colonel replied.

"They can't make it Colonel, their get up and go got up and went."

"Do you need anything?"

"What do you have?"

"Some of everything."

"Gunny, I'll print a list off of my computer, I updated the inventory last night," April said.

"What happened here?"

"They almost missed us but spotted the old road into the area. We ended up retreating to the castle and were prepared for a long siege. The fella in charge, Tom Henson,

didn't put in an escape tunnel and we started one. Tom had a stroke and died and his wife April, the lady you just met, took over. We finished the tunnel and then attacked."

"Lose many people?"

"90% of us got wounded, but nobody died. We have 2 doctors here and a small hospital. Unfortunately all of the attackers died from their wounds."

"We noticed, head shots."

"Here's your list, Colonel."

"It will take a while, but we'll get you most of these things. We'll load those bodies and haul them away for you."

"What's going on around the country?"

"General chaos, unrest, limited supplies, just what you'd expect. Does this place have a name?"

"It does. Tom called it Patton's Castle. Called it his monument to stupidity."

"Didn't seem to work out that way, from what I've seen. I've got to be going; we'll get those supplies to you as quickly as possible. Keep your powder dry, this thing isn't over."

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